

Some rare Aphids in new Regions in India

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I. APHIDS NEW TO SOUTHERN INDIA

1. *Sarucallis kahawaluokalani* (Kirkaldy) 1907

Myzocallis kahawaluokalani Kirkaldy 1907.

Tao (1964) assigned this species to the genus *Sarucallis* Shinji on account of the presence of tubercles on the head and abdomen only and the elongate secondary rhinaria on the antennal segments.

In India this species has so far been known only from the north-east region where its food plants are *Lagerstroemia* sp. and *Lawsonia alba* (Ghosh & Raychaudhuri 1959, and Basu 1961). This has now been found in the extreme south in Trivandrum (Kerala) on *Lagerstroemia* sp. (iv. 57) by the writer.

2. *Akkaia bengalensis* Basu 1968

This species was taken in Dodabetta, Ootacamund (2637 m. above sea-level) (coll. A. A. Kareem, 19. vii. 60) in the Nilgiri hills in south India. Its food plant in this locality is *Polygonum sphaerocephalum*.

3. *Matsumuraja capitophoroides* Hille Ris Lambers 1966

Hille Ris Lambers (1966) described *Matsumuraja capitophoroides* from specimens collected on *Rubus* sp. from Murree, Pakistan. He also mentions that it has been noted in the southern slopes of the Himalayas.

This species occurs commonly on *Rubus* sp. on the Nilgiri hills in south India. It has been taken from Coonoor (2200 m. above sea-level) (12.i.57, coll. S. K. David) and Ketti (2500 m. above sea-level) (iii. 67, coll. S. K. David).

4. *Shoutedenia lutea* (van der Goot) 1917

This species is widely distributed in eastern Asia in Japan, Indonesia and Ceylon where its usual host is *Fluggea virosa*. It was noted in north-east India by Basu (1961) on *Boehmeria polystachya*. The present record is from Walayar, Coimbatore, in south India. Its host plant here is *Fluggea virosa* (19.vii.60, coll. S. Jayaraj).

5. **Dactynotus (Uromelan) compositae** (Theobald) 1915

Macrosiphum compositae Theobald sec. Krishnamurthi (1930).

Although Krishnamurthi (1930) recorded an aphid on *Echinops echinata* as *Macrosiphum compositae* Theobald, this species, according to present concepts, has not so far been met with in south India. An aphid collected on *Gallardia* in Bangalore (11.iii.62, coll. K. K. Nambiar) establishes that it is present here. It has already been noted in north-east India by Basu & Banerjee (1958) on *Calendula*, *Cosmos* and *Zinnia*.

II. APHIDS NEW TO THE CENTRAL REGION OF NORTH INDIA

1. **Macrosiphum pachysiphon** Hille Ris Lambers 1966

This species was described from specimens collected on *Rubus* sp. in Murree, Pakistan, and on *Rubus lasiocarpus* in Shillong in north-east India. It has now been noted in Mussoorie, Uttar Pradesh (2005 m. above sea-level) (22.ix.66, coll. S. K. David) on *Rubus* sp.

This species closely resembles *Sitobion* Mordwilko but has longer and larger number of hairs on the body. Unlike species of *Sitobion* group, these aphids, which were green in colour, were found closely huddled together on the stem of the terminal shoot.

2. **Aphis kurosawai** Takahashi 1921

Brachyunguis kurosawai (Takahashi) sec. Tao 1962.

This species was noted on *Artemisia vulgaris* in Dehra Dun, Uttar Pradesh (681 m. above sea-level) (23.ix.66, coll. S. K. David). It was green in colour and was found on the terminal shoot of the inflorescence which it twisted badly. Ants were present with the aphid.

3. **Longicaudus himalayensis** Hille Ris Lambers 1965

This species was differentiated from other species of the genus by two alate specimens collected on *Quercus* sp. in Simla (x.57, coll. K. K. Nirula) (2205 m. above sea-level) sent by the writer. Three other alates of the same sample are in the writer's collection. Since a description of the species was not given by Dr. D. Hille Ris Lambers, it is included here.

Alate viviparous female.

Body oval, 1.728 to 2.016 mm. in length. Tergum lined with striae of minute spinules in close parallel series transversely all over. Brown sclerotic stripes are present in the spino-pleural portions of abdominal segments II to V, coalescing with each other to form a composite dark patch with perforations in the intersegmental areas. Marginal sclerotic spots are present. Hairs long, thin, pointed, about equal in length to the basal breadth of the antennal segment III. Tergite VIII with 4 hairs.

Head flat, smooth and brown. Hairs on the vertex about $\frac{3}{4}$ basal breadth of antennal segment III. No frontal tubercles. Antenna brown slightly shorter than the body. Segment I smooth with a whorl of about 8 hairs which are short and thick. Segment II smooth with about 4 or 5 hairs. Segment III brown, long and smooth with about 60 to 75 oval, tuberculate rhinaria on all sides and about 13 short, thick hairs, about $\frac{1}{3}$ the breadth of the segment. IV brown, imbricate, about $\frac{1}{3}$ the length of segment III with 0 to 4 rhinaria and 2 or 3 hairs. V brown, imbricate with 3 or 4 hairs. VI base slightly shorter than V, processus terminalis short, about 2 to $2\frac{1}{2}$ times the base of that segment.

Rostrum short, reaching second coxae, last two segments brown and broad; last segment broad at base, equal to its length, with slightly curved sides, tapering to a slightly obtuse apex, about $1\frac{1}{4}$ the length of the 2nd joint of the hind tarsus, with 2 or 3 hairs besides the apical pairs.

Siphunculi light brown, short, about $\frac{1}{16}$ of the body, cylindrical, slightly tapering, with spinule striae all over and without a flange. Cauda light brown, about equal to the length of siphunculi, conical, broad at base, slightly longer than broad, with about 9 hairs. Legs brown, evenly hairy with short thick hairs, some spinule striae in distal ends of femora in the hind leg. First tarsal chaetotaxy 6, 6, 6. Wings normal venation with the stigma elongate and the veins dark.

MEASUREMENTS OF SPECIMENS IN MM.

No.	Length of body	Antennae	Siphunculi	Cauda	Antennal segments				Rhinaria on		
					III	IV	V	VI	III	IV	
1.	2.016	1.71	.11	.11	.738	.252	.198	.126	+ .27	66	0
2.	1.998	1.647	.108	.11	.72	.216	.171	.126	+ .288	67	4
3.	1.728	1.71	.114	.108	.738	.234	.198	.126	+ .288	73	3

On *Quercus* sp., Simla, x.57, coll. K. K. Nirula. Since all these are only alates, it is doubtful whether *Quercus* sp. is a regular food plant.

4. *Liosomaphis atra* Hille Ris Lambers 1966

Hille Ris Lambers (1966) differentiated this species from other species of the genus by the dark sclerotic tergum of the abdomen. It was noted on *Berberis* sp. in Murree, Pakistan. An aphid collected on this plant in Simla (19.ix.56, coll. A. N. Azad) closely resembles this species in the sclerotic pattern of the abdomen. It has, however, a shorter rostrum reaching only to the middle coxae.

5. *Paratrichosiphum tattakanum* (Takahashi) 1925

This species has so far been recorded in north-east India on *Quercus* sp. by Basu (1961). It has also been taken on the same plant in Simla (ix.57, coll. K. K. Nirula) and Mussoorie (22.ix.66, coll. S. K. David).

6. *Forda* (*Pentaphis*) *orientalis* George 1928

Forda orientalis George 1928.

Forda hirsuta Mordwilko sec. David 1958.

This species was described from specimens collected on the roots of *Sorghum vulgare* (syn. *Andropogon sorghum*) in Coimbatore. It was again collected on the roots of *Pennisetum typhoides* in Coimbatore (8.x.55, coll. S. K. David) (David 1958). Dr. D. Hille Ris Lambers in private correspondence, points out that this species differs from *Forda* (*Pentaphis*) *hirsuta* Mordwilko 1918 by the pointed hairs on the body as opposed to the blunt hairs in the latter species.

This species has now been collected on the roots of *Bothriochloa insculpta* in Dehra Dun, Uttar Pradesh (22.ix.66, coll. S. K. David).

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(Papers marked with an asterisk have not been consulted in the original).